AMENDMENTS TO THE CLAIMS:

1. (Currently Amended) A portable maritime scoring and simulation system, comprising:

at least three buoys placed in a body of water;

a global positioning satellite (GPS) receiver attached to each buoy to provide a GPS location of the buoys;

an radio frequency (RF) radio system attached to each buoy;

an acoustic analysis system attached to each buoy to capture an acoustic signature of ordnance impacting the water;

a microprocessor attached to each buoy, wherein the microprocessor monitors and controls the GPS receiver, the RF radio system, and the acoustic analysis system;

a system controller to control and monitor the microprocessor; and,

an RF radio repeater system linking the RF radio system with the system controller,

wherein when ~~an~~ the acoustic signature is captured by the acoustic analysis system, the RF radio system transmits a time of capture and the GPS location of ~~the~~ said each buoy to the system controller through the RF radio repeater system,

wherein when said at least three ~~or more~~ buoys transmit the ~~captured~~ acoustic signature, which is captured, the system controller computes ~~the~~ a location of impact using a location process, and

wherein the location process comprises a calculated accumulated error computed from a calculated impact location entered into an equation for said acoustic analysis system of each said buoy where an output is a residual for said equation.

2. (Currently Amended) The system of claim 1, further comprising five buoys.

3. (Original) The system of claim 2, wherein the five buoys comprise locations in a substantially pentagonal shape.

4. (Currently Amended) The system of claim ~~3~~ 1, wherein the location process comprises ~~deriving an~~ a derived non-linear equation ~~with a~~ for an unknown vertical position within a two dimensional plane, ~~a~~ an unknown horizontal position within the two dimensional plane, and an unknown time of the impact ~~unknowns for each buoy acoustic signature capture~~ and ~~solving the~~ N-simultaneous equations solved for the unknowns.

5. (Currently Amended) The system of claim ~~4~~ 1, wherein the location process employs a least squares method.

6. (Currently Amended) The system of claim 1, further comprising an automated ~~means~~ capability for the system controller to determine the location of the buoys with respect to a ship for buoy recovery,

wherein the RF repeater system marks the position of the ship for range and bearing calculations to the buoys.

7. (Currently Amended) The system of claim 4 1, wherein the ~~location process further~~ accumulated error comprises a calculation of accumulated error in determining ~~the location of~~ an ordnance impact location in relation to each ~~buoy~~ said acoustic signature, which is captured ~~capture~~.

8. (Original) The system of claim 1, wherein the RF radio repeater system comprises a digital signal processor, an RF radio, a GPS receiver, and a microphone.

9. (Currently Amended) A method of controlling the portable maritime scoring and simulation system ~~of claim 1~~, comprising ~~the steps of~~:

commanding the buoys to report acoustic signature captures

selecting a fire mission type;

entering fire mission data;

waiting for messages from the buoys regarding acoustic signature captures;

calculating ~~the~~ through a system controller and an acoustic analysis system an impact location from the acoustic signature captures using a location process;

updating the fire mission data with the impact location;

determining if the fire mission type requires further impacts, if further impacts are required, the system returns to a ready state, if further impacts are not required, the fire mission is ended; and,

recovering the buoys when system use is completed.

wherein the location process comprises a calculated accumulated error computed from a calculated impact location using real time data entered into an equation for said acoustic analysis system of each said buoy where an output is a residual for said equation.

10. (Currently Amended) The method of claim ~~10~~ 9, further comprising ~~the step of~~ selecting live or simulation communication with the buoys before arming the buoys.

11. (Currently Amended) The method of claim ~~11~~ 9, further comprising ~~the steps of:~~ loading and displaying a combat chart on a system controller display; and,

entering buoy identification numbers for each buoy to facilitate radio communication between the buoys and the system controller.

12. (Currently Amended) The method of claim ~~12~~ 9, further comprising ~~the step of~~ displaying ~~the~~ buoy positions on ~~the~~ a combat chart to graphically depict buoy locations.

13. (Currently Amended) The method of claim ~~10~~ 9, wherein ~~the step of~~ calculating the impact location includes ~~the steps of: receiving~~ messages received from at least three ~~or more~~ buoys indicating an impact; ~~deriving~~ linear approximation equations are derived for two-dimensional location and time variables for each buoy, which sends ~~sending~~ a message; and, ~~solving~~ the linear approximation equations are solved.

14. (Currently Amended) The method of claim ~~14~~ 9, wherein said messages are received from more than three buoys.

15. (Currently Amended) The method of claim ~~15~~ 13, wherein the linear approximation equations are solved by a least squares method.

16. (Currently Amended) The method of claim ~~15~~ 9, ~~further comprising the step of calculating an~~ wherein said equation comprises a linear approximation equation, said

accumulated error is calculated using ~~for~~ each of the linear approximation equations.

17. (Currently Amended) The method of claim ~~10~~ 9, wherein the recovering the buoys ~~step~~ includes the system controller ~~calculating the~~ calculates a distance and position of each buoy from a ship.